

WHAT IS CLAIMED IS:

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

1. A printer comprising:  
an input tray including an input print media support surface;  
and  
an output tray including an output print media support surface; wherein  
at least one of the trays form part of an exterior side of the printer substantially contoured with a housing of the printer when the trays are in a closed position, and wherein the print media support surface of one of the trays is positioned outboard of the print media support surface of the other tray when the input tray and the output tray are in the closed position; wherein  
the input tray is configured to prevent input print media in the input tray that has not been circulated through the printer from contacting output print media in the output tray that has been circulated through the printer; and wherein  
the output tray is configured to prevent output print media in the output tray that has been circulated through the printer from contacting input print media in the input tray that has not been circulated through the printer.
2. The printer of claim 1, wherein the input tray and the output tray are rotatable from the closed position to a open position and from the open position to the closed position.
3. The printer of claim 2, wherein the input tray forms part of an exterior side of the printer substantially contoured with a housing of the printer when the trays are in a closed position, and wherein the input

29 print media support surface of the input tray is positioned outboard of the  
30 output print media support surface of the output tray when the input tray  
31 and the output tray are in the closed position.

32  
33 4. The printer of claim 3, wherein the input print media support  
34 surface of the input tray is positioned below the output tray when the  
35 input tray and the output tray are in an open position.

36  
37 5. The printer of claim 3, wherein the output tray sits about  
38 20 mm above the input tray when both trays are in the open position.

39  
40 6. The printer of claim 3, wherein the input tray is of one-piece  
41 configuration.

42  
43 7. The printer of claim 3, wherein the input tray comprises a  
44 slotted gusset on at least one side of the input tray, the gusset extending  
45 on a plane normal to an axis of rotation of the input tray, and wherein a  
46 rotation boss of the output tray extends through a slot in the slotted  
47 gusset.

48  
49 8. The printer of claim 3, wherein the input tray comprises  
50 slotted gussets on two sides of the input tray, the slotted gussets  
51 extending on a plane normal to an axis of rotation of the input tray, and  
52 wherein rotation bosses of the output tray extend through a slot in each  
53 of the gussets.

54  
55 9. The printer of claim 7, wherein an end of the slot of the  
56 slotted gusset contacts the rotation boss of the output tray when the

57 input tray is rotated to the open position to limit the rotation of the input  
58 tray.

59

60 10. The printer of claim 9, wherein an end of the slot of the  
61 slotted gusset contacts the rotation boss of the output tray when the  
62 input tray is rotated to the open position to define the angle of the input  
63 tray when the input tray is at the open position.

64

65 11. The printer of claim 7, wherein the slotted gusset has a  
66 detent rib extending from the slotted gusset to lock the input tray in the  
67 closed position.

68

69 12. The printer of claim 11, wherein the detent rib of the slotted  
70 gusset interferes with a rib on the housing when the input tray is rotated  
71 in the direction of the open position from the closed position, the  
72 interference being a result of elastic deformation in at least one of the  
73 slotted gusset and a portion of the printer housing that supports the rib on  
74 the printer housing.

75

76 13. The printer of claim 12, wherein the detent rib does not  
77 interfere with the rib on the housing when the input tray is in the closed  
78 position and when the input tray is in the open position.

79

80 14. The printer of claim 11, wherein the housing includes a guide  
81 component that interferes with the slotted gusset when the input tray is  
82 rotated in the direction of the closed position from the open position to  
83 elastically deform the slotted gusset so that the detent rib is pushed  
84 behind the rib on the housing to lock the input tray in the closed position.

85

86           15.    The printer of claim 3, wherein the input tray includes a  
87   rotation stop that contacts the output tray when the input tray is in the  
88   open position to limit the rotation of the output tray.

89

90           16.    The printer of claim 15, wherein the rotation stop defines the  
91   angle of the output tray in the open position when the input tray is in the  
92   open position.

93

94           17.    The printer of claim 16, wherein the angle of the output tray  
95   when the output tray is in the open position is defined by the angle of the  
96   input tray when the input tray is in the open position.

97

98           18.    The printer of claim 15, wherein the rotation stop contacts a  
99   rotation stop surface on the output tray, and wherein rotation of the input  
100   tray and the output tray from the open position causes the rotation stop  
101   to be positioned in an area below the stop surface.

102

103           19.    The printer of claim 3, wherein the output tray includes an  
104   output media stop that is extendable and retractable.

105

106           20.    The printer of claim 3, wherein the output tray nests inside  
107   the input tray when the input tray is in the closed position.

108

109           21.    The printer of claim 3, wherein a substantial portion of the  
110   output tray nests inside the input tray when the input tray is in the closed  
111   position.

112

113           22.    The printer of claim 3, wherein the input tray and the output  
114   tray elastically deform to permit rotation bosses on the input tray and the  
115   output tray to snap into respective receptacles of the printer housing.

116

117           23.    The printer of claim 19, wherein the output media stop  
118   hingedly rotates to be flush with or below the output print media support  
119   surface of the output tray.

120

121           24.    A printer, comprising:

122                   an input tray including a input print media support surface;

123   and

124                   an output tray including an output print media support  
125   surface separate from the input print media support surface of the input  
126   tray; wherein

127                   the output tray nests in the input tray or the input tray nests  
128   in the output tray when the input tray and the output tray are in the  
129   closed position; and wherein

130                   the input tray is configured to prevent input print media in the input  
131   tray that has not been circulated through the printer from contacting  
132   output print media in the output tray that has been circulated through the  
133   printer.

134

135           25.    The printer of claim 24, wherein the output tray nests in the  
136   input tray when the input tray and the output tray are in a closed position.

137

138           26.    The printer of claim 25, wherein a portion of the output tray  
139   extends past a plane formed by the input print media support surface of  
140   the input tray when the output tray nests in the input tray.

141

142           27.    The printer of claim 25, wherein the input tray comprises  
143   support walls extending from the input print media support surface of the  
144   input tray along the sides of the input tray, and wherein a substantial  
145   portion of the output print media support surface of the output tray lies  
146   inside an extrapolated volume formed by the input print media support  
147   surface of the input tray and the support walls of the input tray.

148

149           28.    The printer of claim 25, wherein the support walls of the  
150   input tray substantially extend past sides of the output tray when the  
151   input tray and the output tray are in a closed position.

152

153           29.    The printer of claim 24, wherein the output tray nests in the  
154   input tray when the input tray and the output tray are in a closed position,  
155   and wherein the input tray and the output tray are rotatable from the  
156   open position to the closed position.

157

158           30.    The printer of claim 29, wherein a thickness of the input tray  
159   and the output tray is about the same as the thickness of the input tray  
160   when the output tray nests in the input tray.

161

162           31.    The printer of claim 29, wherein the input print media  
163   support surface of the input tray is positioned below the output tray when  
164   the input tray and the output tray are in an open position.

165

166           32.    The printer of claim 29, wherein the output tray sits about  
167   20 mm above the input tray.

168

169           33.    The printer of claim 29, wherein the input tray is of one-  
170   piece configuration.

171

172           34.    The printer of claim 33, wherein the input tray comprises a  
173    slotted gusset on at least one side of the input tray, the slotted gusset  
174    extending on a plane normal to an axis of rotation of the input tray, and  
175    wherein a rotation boss of the output tray extends through a slot in the  
176    slotted gusset.

177

178           35.    The printer of claim 29, wherein the input tray comprises  
179    slotted gussets located on two sides of the input tray, the slotted gussets  
180    extending on a plane normal to an axis of rotation of the input tray and  
181    wherein rotation bosses of the output tray extends through a slot in each  
182    of the slotted gussets.

183

184           36.    The printer of claim 35, wherein an end of the slot of the  
185    slotted gusset contacts the rotation boss of the output tray when the  
186    input tray is rotated to the open position to limit the rotation of the input  
187    tray.

188

189           37.    The printer of claim 36, wherein an end of the slot of the  
190    slotted gusset contacts the rotation boss of the output tray when the  
191    input tray is rotated to the open position to define the angle of the input  
192    tray when the input tray is at the open position.

193

194           38.    The printer of claim 34, wherein the slotted gusset has a  
195    detent rib extending from the slotted gusset to lock the input tray in the  
196    closed position.

197

198           39.    The printer of claim 38, wherein the detent rib of the slotted  
199    gusset interferes with a rib on a housing when the input tray is rotated in

200 the direction of the open position from the closed position, the  
201 interference being a result of elastic deformation in at least one of the  
202 slotted gusset and a portion of the printer housing that supports the rib on  
203 the printer housing.

204

205 40. The printer of claim 39, wherein the detent rib does not  
206 interfere with the rib on the housing when the input tray is in the closed  
207 position and when the input tray is in the open position.

208

209 41. The printer of claim 38, wherein the housing includes a guide  
210 component that interferes with the gusset when the input tray is rotated  
211 in the direction of the closed position from the open position to elastically  
212 deform the slotted gusset so that the detent rib is pushed behind the rib  
213 on the housing to lock the input tray in the closed position.

214

215 42. The printer of claim 29, wherein the input tray includes a  
216 rotation stop that contacts the output tray when the input tray is in the  
217 open position to limit the rotation of the output tray.

218

219 43. The printer of claim 42, wherein the rotation stop defines the  
220 angle of the output tray when the input tray is in the open position.

221

222 44. The printer of claim 43, wherein the angle of the output tray  
223 when the output tray is in the open position is defined by the angle of the  
224 input tray when the input tray is in the open position.

225

226 45. The printer of claim 42, wherein the rotation stop contacts a  
227 rotation stop surface on the output tray, and wherein rotation of the input



228 tray and the output tray from the open position causes the rotation stop  
229 to be positioned in an area below the stop surface.

230

231 46. The printer of claim 29, wherein the output tray includes a  
232 tray extension that is extendable and retractable.

233

234 47. The printer of claim 46, wherein the tray extension rotates  
235 from a stowed position in the output tray to an in-use position.

236

237 48. The printer of claim 46, wherein the tray extension  
238 telescopes outward from under the print media support surface of the  
239 output tray to an in-use position.

240

241 49. The printer of claim 29, wherein the input tray and the  
242 output tray elastically deform to permit rotation bosses on the input tray  
243 and the output tray to snap into respective receptacles of a printer  
244 housing.

245

246 50. The printer of claim 29, wherein the input tray forms part of  
247 an exterior side of the printer substantially contoured with a housing of  
248 the printer.

249

250 51. The printer of claim 26, wherein the output tray is a output  
251 tray.

252

253 52 The printer of claim 25, wherein the printer has Print, Fax,  
254 Scan, and Copy capability.

255

256

257           53.    The printer of claim 1, wherein the input tray is rotatable  
258    about a first axis of rotation from the closed position to the open position  
259    and from the open position to the closed position, and wherein the output  
260    tray is rotatable about a second axis of rotation from the closed position  
261    to the open position and from the open position to the closed position.

262

263           54.    The printer of claim 1, wherein the first axis of rotation is  
264    separate from the second axis of rotation.

265

266           55.    A printer, comprising:  
267                   a means for supporting input print media; and  
268                   a means for supporting output print media; wherein  
269                   the means for supporting input print media has a surface that  
270    is substantially contoured with an exterior surface of a printer housing.

271

272           56.    The printer of claim 55, wherein the means for supporting  
273    input print media and the means for supporting output print media are  
274    rotatable about distinct axes between open and closed positions.

275

276           57.    A printer, comprising:  
277                   a means for supporting input print media; and  
278                   a means for supporting output print media; wherein  
279                   one of the means for supporting input print media and the  
280    means for supporting output print media nests within the other when in  
281    the closed position.

282

283           58.    The printer of claim 57, wherein the means for supporting  
284    input print media and the means for supporting output print media are  
285    rotatable about distinct axes between open and closed positions.